

Appl No. 09/652,511
Reply to Office action of 06/15/05
Amendment/Response date: September 23, 2005

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-26 (Cancelled).

27. (Previously Presented): A system for providing priority based access to a shared resource, comprising:

a central arbiter coupled to the shared resource, the central arbiter having a first input and a second input;

a first device having a request line for requesting access to the shared resource coupled to the first input of the central arbiter;

a second device having a request line for requesting access to the shared resource; and

a priority based arbiter that intercepts access requests from the request line from the second device and forwards access requests from the second device to the second input of the central arbiter; and

wherein the priority based arbiter is responsive to a signal from the first device indicative of a priority for the first device to delay requesting access for the second device for a predetermined amount of time.

28. (Previously Presented) The system of claim 27, the priority based arbiter further comprising a counter.

29. (Previously Presented) The system of claim 28, wherein a value is input into the counter based on the signal indicative of the priority status of the first device; and the predetermined amount of time is based on the value in the counter.

30. (Previously Presented) The system of claim 29, wherein the priority based arbitrator is configured to change the value in the counter based on a change of the signal from the first device indicative of the priority status of the first device.

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31. (Previously Presented) The system of claim 30, the priority based arbiter further comprises a programmable configuration logic for configuring the counter to generate the predetermined delay associated with respective context data.

32. (Previously Presented) The system of claim 27, wherein said shared resource is a bus.

33. (Previously Presented) The system of claim 27, wherein the priority based arbitrator provides no delay in generation of the modified request signal responsive to a signal from the first device indicative of an idle state.

34. (Currently Amended) A system for providing priority based access to a shared resource, comprising:

means for granting access to the shared resource having a first input and a second input;
a first device having a first request means for requesting access to the shared resource
coupled to the first input of the means for granting;

a second device having a second request means for requesting access to the shared
resource; and

means for alternatively granting access to the shared resource between the first device
and the second device when both devices request access to the shared resource; and

means for priority based arbitration that intercepts[[ing]] a request for access to the
shared resource from the second request means of the second device coupled between the second
device and the means for alternatively to the second input of the means for granting access;

wherein the means for intercepting the request for access from the second device priority
based arbitration is responsive to a signal from the first device indicative of a priority status of
the first device to delay the request for access from the second request means of the second
device to the means for alternatively granting access to the shared resource a predetermined
amount of time based on the signal indicative of the priority status of the first device.

35. (Previously Presented) The system of claim 34, the means for intercepting further comprising means for counting.

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36. (Previously Presented) The system of claim 35, wherein a value is input into the means for counting based on the signal indicative of the priority status of the first device; and the predetermined amount of time is based on the value in the means for counting.

37. (Previously Presented) The system of claim 36, wherein the means for intercepting is configured to change the value in the means for counting based on a change of the signal from the first device indicative of the priority status of the first device.

38. (Previously Presented) The system of claim 34, wherein said shared resource is a bus.

39. (Previously Presented) The system of claim 34, wherein the means for intercepting provides no delay responsive to the signal from the first device indicating of an idle state.

40. (Currently Amended) A method for selectively granting access to a shared resource between a first device and a second device, comprising:

receiving a signal from the first device requesting access to the shared resource at a first input of a central arbiter coupled to the shared resource, the signal from the first device having an associated priority level;

intercepting a signal from a second device requesting access to the shared resource by a prioritized arbiter coupled to a second input of the central arbiter;

receiving a signal by the prioritized arbiter indicative of the associated priority level of the signal from the first device; and

delaying the intercepted signal from the second device requesting access to the shared resource a predetermined amount of time by the prioritized arbiter based on the associated priority level of the first device.

41. (Previously Presented) The method of claim 40, the delaying a signal further comprising:

initializing a counter with a predetermined initial value based on the associated priority level of the first device; and

decrementing the counter until the counter reaches a predetermined threshold value;

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wherein the delaying continues until the counter reaches the predetermined threshold value.

42. (Previously Presented) The method of claim 41, wherein the delaying further comprises:

re-initializing the counter responsive to a change of the associated priority level of the signal from the first device indicative.

43. (Previously Presented) The method of claim 40, wherein the delaying provides no delay responsive to a signal from the first device indicative of an idle state.

44. (Previously Presented) The method of claim 40, wherein the associated priority level is one of the group consisting of high priority, low priority, and idle.

45. (Previously Presented) The system of claim 27, wherein the priority based arbiter is responsive to the signal from the first device to control the frequency of access requests from the second device forwarded to the second input of the central arbiter based on the signal from the first device indicative of the priority for the first device.